

# INTELLIGENT BRAKING SYSTEM AND METHOD

## Abstract of the Disclosure

A distance, speed and direction sensitive processor coupled to a brake controller. The processor executes instructions to compare actual vehicle performance with that of a deceleration profile and modulates the brake controller to  
5 bring vehicle performance into agreement with the profile. Distance information is provided by a radar sensor for long ranges, an ultrasonic sensor for medium ranges, and a wheel rotation sensor for short ranges. Speed information is provided by a vehicle mounted sensor or calculated by the processor based on distance. Direction  
10 information is provided by a vehicle mounted switch or determined by the processor based on distance. The brake controller includes a hold valve and a dump valve, each of which is modulated with a pulse train signal.